

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each n is independently 1 or 2;

Each m is independently 0, 1, 2, 3, or 4;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; haloalkyl; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=N R<sup>5</sup>) NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub> R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; haloalkyl; COOR<sup>5</sup>; C(O)R<sup>5</sup>;

$C(O)C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nR^5$ ;  $S(O)_nNR^5R^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$ ,  $R^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $R^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

Each  $R^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^8$ ; halo; haloalkyl;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $COOR^5$ ;  $NO_2$ ; CN;  $C(O)R^5$ ;  $C(O)C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nR^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)C(O)R^5$ ;  $NR^5C(O)R^5$ ;  $NR^5(COOR^5)$ ;  $NR^5C(O)R^8$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^5$ ;  $NR^5S(O)_nR^8$ ;  $NR^5C(O)C(O)NR^5R^5$ ;  $NR^5C(O)C(O)NR^5R^6$ ;  $OC(O)NR^5R^5$ ;  $OS(O)_nNR^5R^5$ ;  $NR^5S(O)_nOR^5$ ;  $P(O)(OR^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

Each haloalkyl is independently a C1-C10 alkyl substituted with one or more halogen atoms, selected from F, Cl, Br, or I, including perhaloalkyl;

Each aryl is independently a 6-carbon monocyclic, 10-carbon bicyclic or 14-carbon tricyclic aromatic ring system optionally substituted with 1-3 independent C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl;  $R^9$ ; halo; haloalkyl;  $OR^{10}$ ;  $SR^{10}$ ;  $NR^{10}R^{10}$ ;  $NR^{10}R^{11}$ ;  $COOR^{10}$ ;  $NO_2$ ; CN;  $C(O)R^{10}$ ;  $C(O)C(O)R^{10}$ ;  $C(O)NR^{10}R^{10}$ ;  $N(R^{10})C(O)NR^{10}R^{10}$ ;  $N(R^{10})C(O)R^{10}$ ;  $N(R^{10})S(O)_nR^{10}$ ;  $N(R^{10})(COOR^{10})$ ;  $NR^{10}C(O)C(O)R^{10}$ ;  $NR^{10}C(O)R^9$ ;  $NR^{10}S(O)_nNR^{10}R^{10}$ ;  $NR^{10}S(O)_nR^9$ ;  $NR^{12}C(O)C(O)NR^{12}R^{12}$ ;  $S(O)_nR^{10}$ ;  $S(O)_nNR^{10}R^{10}$ ;  $OC(O)R^{10}$ ; C1-C10 alkyl substituted with 1-3 independent  $R^9$ , halo,  $CF_3$ ,  $OR^{10}$ ,  $SR^{10}$ ,  $OC(O)R^{10}$ ,  $NR^{11}R^{11}$ ,  $NR^{10}R^{10}$ ,  $NR^{10}R^{11}$ ,  $COOR^{10}$ ,  $NO_2$ , CN,  $C(O)R^{10}$ ,  $OC(O)NR^{10}R^{10}$ ,  $C(O)NR^{10}R^{10}$ ,  $N(R^{10})C(O)R^{10}$ ,  $N(R^{10})(COOR^{10})$ ,  $S(O)_nNR^{10}R^{10}$ ;  $R^{10}$ ; or C2-C10 alkenyl substituted with 1-3 independent  $R^9$ , halo,  $CF_3$ ,  $OR^{10}$ ,  $SR^{10}$ ,  $OC(O)R^{10}$ ,  $NR^{11}R^{11}$ ,  $NR^{10}R^{10}$ ,  $NR^{10}R^{11}$ ,  $COOR^{10}$ ,  $NO_2$ , CN,  $C(O)R^{10}$ ,  $OC(O)NR^{10}R^{10}$ ,  $C(O)NR^{10}R^{10}$ ,  $N(R^{10})C(O)R^{10}$ ,  $N(R^{10})(COOR^{10})$ ,  $S(O)_nNR^{10}R^{10}$ ;

Each heterocyclyl is independently a 3-8 membered nonaromatic monocyclic, 8-12 membered nonaromatic bicyclic, or 11-14 membered nonaromatic tricyclic, ring system having 1-4 heteroatoms if monocyclic, 1-8 heteroatoms if bicyclic, or 1-10 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S;

Each heteroaryl is independently a 5-8 membered aromatic monocyclic, 8-12 membered aromatic bicyclic, or 11-14 membered aromatic tricyclic ring system having 1-4

heteroatoms if monocyclic, 1-8 heteroatoms if bicyclic, or 1-10 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S;

provided R<sup>1</sup> and R<sup>2</sup> are not both 1-alkylpyridinium, both 4-pyridyl or both morpholino; further provided R<sup>1</sup> is not NH<sub>2</sub>;

further provided R<sup>1</sup> and R<sup>2</sup> are not both hydroxy, methoxy, ethoxy or phenoxy;

further provided R<sup>1</sup> is not phenoxy, acetylamino, or methylamino when R<sup>2</sup> is morpholino;

further provided R<sup>1</sup> is not methoxy or hydroxy when R<sup>2</sup> is 4-chlorophenylamino;

further provided R<sup>1</sup> is not phenoxy, methoxy or ethoxy when R<sup>2</sup> is 4-aminophenylsulfonylamino;

further provided R<sup>1</sup> is not phenoxy when R<sup>2</sup> is 4-methylthiophenylamino or sulfanilamido; and

further provided R<sup>1</sup> is not hydroxy when R<sup>2</sup> is hexylamino, phenylamino, 3-methylphenylamino, 2-ethoxyphenylamino, 4-methylthiophenylamino, 2-ethylsulfinylphenylamino, 3-propylsulfonylphenylamino, 4-acetylphenylamino, 4-sulfamylphenylamino, 3-nitrophenylamino, 4-cyanophenylamino, 4-carboxyphenylamino, 4-(acetylamino)phenylamino, 4-biphenylamino, 1-naphthylamino, 4-pyridylamino, 2-thiazolylamino, 4-quinolylamino, and 2-pyrimidinylamino.

2. The compound of claim 1 wherein,

R<sup>1</sup> is independently R<sup>3</sup>;

R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted

with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

3. The compound of claim 1 wherein,

$R^1$  is independently heteroaryl optionally substituted with 1-4 independent  $R^4$  on each ring;

$R^2$  is independently  $NHR^3$ ;

Each  $R^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $R^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $R^4$  on each ring;

Each  $R^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^8$ ; halo;  $CF_3$ ;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $NR^5R^{16}$ ;  $COOR^5$ ;  $NO_2$ ;  $CN$ ;  $C(O)R^5$ ;  $C(O)C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nR^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)C(O)R^5$ ;  $NR^5C(O)R^5$ ;  $NR^5(COOR^5)$ ;  $NR^5C(O)R^8$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^5$ ;  $NR^5S(O)_nR^8$ ;  $NR^5C(O)C(O)NR^5R^5$ ;  $NR^5C(O)C(O)NR^5R^6$ ;  $OC(O)NR^5R^5$ ;  $OS(O)_nNR^5R^5$ ;  $NR^5S(O)_nOR^5$ ;  $P(O)(OR^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

Each  $R^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$ ;

Each  $R^6$  is independently  $C(O)R^5$ ,  $COOR^5$ ,  $C(O)NR^5R^5$ ,  $C(=NR^5)NR^5R^5$ , or  $S(O)_nR^5$ ;

Each  $R^7$  is independently halo,  $CF_3$ ,  $SR^{10}$ ,  $OR^{10}$ ,  $OC(O)R^{10}$ ,  $NR^{10}R^{10}$ ,  $NR^{10}R^{11}$ ,  $NR^{11}R^{11}$ ,  $COOR^{10}$ ,  $NO_2$ ,  $CN$ ,  $C(O)R^{10}$ ,  $OC(O)NR^{10}R^{10}$ ,  $C(O)NR^{10}R^{10}$ ,  $N(R^{10})C(O)R^{10}$ ,  $N(R^{10})(COOR^{10})$ ,  $S(O)_nNR^{10}R^{10}$ ;  $NR^{10}S(O)_nNR^{10}R^{10}$ ;  $NR^{10}S(O)_nR^{10}$ ; or  $P(O)(OR^5)_2$ ;

Each  $R^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^9$ ; halo; sulfur; oxygen;  $CF_3$ ;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $NR^6R^6$ ;  $COOR^5$ ;  $NO_2$ ;  $CN$ ;  $C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)R^9$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^9$ ; C1-C10 alkyl substituted with 1-3 independent  $R^7$ ,  $R^9$  or aryl; or C2-C10 alkenyl substituted with 1-3 independent  $R^7$ ,  $R^9$  or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>;

$\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{S}(\text{O})_n\text{R}^5$ ;  $\text{S}(\text{O})_n\text{NR}^5\text{R}^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$ ,  $\text{R}^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $\text{R}^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; and

Each  $\text{R}^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC}(\text{O})\text{R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C}(\text{O})\text{R}^5$ ;  $\text{C}(\text{O})\text{C}(\text{O})\text{R}^5$ ;  $\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{S}(\text{O})_n\text{R}^5$ ;  $\text{S}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C}(\text{O})\text{R}^8$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{R}^8$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{NR}^5\text{R}^6$ ;  $\text{OC}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{OS}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{OR}^5$ ;  $\text{P}(\text{O})(\text{OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ .

4. The compound of claim 1 wherein,

$\text{R}^1$  is independently phenyl optionally substituted with 1-5 independent  $\text{R}^4$ ;

$\text{R}^2$  is independently  $\text{NHR}^3$ ;

Each  $\text{R}^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $\text{R}^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring;

Each  $\text{R}^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC}(\text{O})\text{R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^5\text{R}^{16}$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C}(\text{O})\text{R}^5$ ;  $\text{C}(\text{O})\text{C}(\text{O})\text{R}^5$ ;  $\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{S}(\text{O})_n\text{R}^5$ ;  $\text{S}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C}(\text{O})\text{R}^8$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{R}^8$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C}(\text{O})\text{C}(\text{O})\text{NR}^5\text{R}^6$ ;  $\text{OC}(\text{O})\text{NR}^5\text{R}^5$ ;  $\text{OS}(\text{O})_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S}(\text{O})_n\text{OR}^5$ ;  $\text{P}(\text{O})(\text{OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each  $\text{R}^6$  is independently  $\text{C}(\text{O})\text{R}^5$ ,  $\text{COOR}^5$ ,  $\text{C}(\text{O})\text{NR}^5\text{R}^5$ ,  $\text{C}(=\text{NR}^5)\text{NR}^5\text{R}^5$ , or  $\text{S}(\text{O})_n\text{R}^5$ ;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-

C<sub>10</sub> alkenyl, C<sub>2</sub>-C<sub>10</sub> alkynyl, C<sub>3</sub>-C<sub>10</sub> cycloalkyl, C<sub>4</sub>-C<sub>10</sub> cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C<sub>1</sub>-C<sub>10</sub> alkyl, C<sub>2</sub>-C<sub>10</sub> alkenyl, C<sub>2</sub>-C<sub>10</sub> alkynyl, C<sub>3</sub>-C<sub>10</sub> cycloalkyl, C<sub>4</sub>-C<sub>10</sub> cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>2</sub>-C<sub>10</sub> alkenyl; C<sub>2</sub>-C<sub>10</sub> alkynyl; C<sub>3</sub>-C<sub>10</sub> cycloalkyl; C<sub>4</sub>-C<sub>10</sub> cycloalkenyl; C<sub>1</sub>-C<sub>10</sub> alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>3</sub>-C<sub>10</sub> cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>2</sub>-C<sub>10</sub> alkenyl; C<sub>2</sub>-C<sub>10</sub> alkynyl; C<sub>3</sub>-C<sub>10</sub> cycloalkyl; C<sub>4</sub>-C<sub>10</sub> cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C<sub>1</sub>-C<sub>10</sub> alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C<sub>2</sub>-C<sub>10</sub> alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>2</sub>-C<sub>10</sub> alkenyl; C<sub>2</sub>-C<sub>10</sub> alkynyl; C<sub>3</sub>-C<sub>10</sub> cycloalkyl; C<sub>4</sub>-C<sub>10</sub> cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C<sub>1</sub>-C<sub>10</sub> alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C<sub>2</sub>-C<sub>10</sub> alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

5. The compound of claim 1 wherein,

Each R<sup>1</sup> and R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C<sub>1</sub>-C<sub>10</sub> alkyl; C<sub>2</sub>-C<sub>10</sub> alkenyl; C<sub>2</sub>-C<sub>10</sub> alkynyl; C<sub>3</sub>-C<sub>10</sub> cycloalkyl; C<sub>4</sub>-C<sub>10</sub> cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>;

$\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each  $\text{R}^6$  is independently  $\text{C(O)R}^5$ ,  $\text{COOR}^5$ ,  $\text{C(O)NR}^5\text{R}^5$ ,  $\text{C(=NR}^5)\text{NR}^5\text{R}^5$ , or  $\text{S(O)}_n\text{R}^5$ ;

Each  $\text{R}^7$  is independently halo,  $\text{CF}_3$ ,  $\text{SR}^{10}$ ,  $\text{OR}^{10}$ ,  $\text{OC(O)R}^{10}$ ,  $\text{NR}^{10}\text{R}^{10}$ ,  $\text{NR}^{10}\text{R}^{11}$ ,  $\text{NR}^{11}\text{R}^{11}$ ,  $\text{COOR}^{10}$ ,  $\text{NO}_2$ , CN,  $\text{C(O)R}^{10}$ ,  $\text{OC(O)NR}^{10}\text{R}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$ ,  $\text{N(R}^{10})\text{C(O)R}^{10}$ ,  $\text{N(R}^{10})$  ( $\text{COOR}^{10}$ ),  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{R}^{10}$ ; or  $\text{P(O)(OR}^5)_2$ ;

Each  $\text{R}^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; halo; sulfur; oxygen;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^6\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ; CN;  $\text{C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)R}^9$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^9$ ; C1-C10 alkyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl; or C2-C10 alkenyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl;

Each  $\text{R}^9$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen;  $\text{CF}_3$ ; haloalkyl;  $\text{SR}^{10}$ ;  $\text{OR}^{10}$ ;  $\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{R}^{11}$ ;  $\text{NR}^{11}\text{R}^{11}$ ;  $\text{COOR}^{10}$ ;  $\text{NO}_2$ ; CN;  $\text{C(O)R}^{10}$ ;  $\text{S(O)}_n\text{R}^{10}$ ;  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ; or  $\text{C(O)NR}^{10}\text{R}^{10}$ ;

Each  $\text{R}^{10}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-

3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

6. The compound of claim 1 wherein,

R<sup>1</sup> is independently NHR<sup>5</sup>;

R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>;

$C(O)NR^5R^5$ ;  $S(O)_nNR^5R^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$ ,  $R^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $R^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ; and

Each  $R^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^8$ ; halo;  $CF_3$ ;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $COOR^5$ ;  $NO_2$ ; CN;  $C(O)R^5$ ;  $C(O)C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)C(O)R^5$ ;  $NR^5C(O)R^5$ ;  $NR^5(COOR^5)$ ;  $NR^5C(O)R^8$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^5$ ;  $NR^5S(O)_nR^8$ ;  $NR^5C(O)C(O)NR^5R^5$ ;  $NR^5C(O)C(O)NR^5R^6$ ;  $OC(O)NR^5R^5$ ;  $OS(O)_nNR^5R^5$ ;  $NR^5S(O)_nOR^5$ ;  $P(O)(OR^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

provided  $R^1$  is not  $NH_2$ .

7. The compound of claim 1 wherein,

$R^1$  is independently  $NHR^6$ ;

$R^2$  is independently  $NHR^3$ ;

Each  $R^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $R^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $R^4$  on each ring;

Each  $R^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^8$ ; halo;  $CF_3$ ;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $NR^5R^{16}$ ;  $COOR^5$ ;  $NO_2$ ; CN;  $C(O)R^5$ ;  $C(O)C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)C(O)R^5$ ;  $NR^5C(O)R^5$ ;  $NR^5(COOR^5)$ ;  $NR^5C(O)R^8$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^5$ ;  $NR^5S(O)_nR^8$ ;  $NR^5C(O)C(O)NR^5R^5$ ;  $NR^5C(O)C(O)NR^5R^6$ ;  $OC(O)NR^5R^5$ ;  $OS(O)_nNR^5R^5$ ;  $NR^5S(O)_nOR^5$ ;  $P(O)(OR^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

Each  $R^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$ ;

Each  $R^6$  is independently  $C(O)R^5$ ,  $COOR^5$ ,  $C(O)NR^5R^5$ ,  $C(=NR^5)NR^5R^5$ , or  $S(O)_nR^5$ ;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-

C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

8. The compound of claim 1 wherein,

R<sup>1</sup> is independently OR<sup>5</sup>;

R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>:

$S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)C(O)R^5$ ;  $NR^5C(O)R^5$ ;  $NR^5(COOR^5)$ ;  $NR^5C(O)R^8$ ;  
 $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^5$ ;  $NR^5S(O)_nR^8$ ;  $NR^5C(O)C(O)NR^5R^5$ ;  $NR^5C(O)C(O)NR^5R^6$ ;  
 $OC(O)NR^5R^5$ ;  $OS(O)_nNR^5R^5$ ;  $NR^5S(O)_nOR^5$ ;  $P(O)(OR^5)_2$ ; C1-C10 alkyl substituted with 1-3  
independent aryl,  $R^7$  or  $R^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^8$ ;

Each  $R^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $R^7$  or  $R^9$ ;

Each  $R^6$  is independently  $C(O)R^5$ ,  $COOR^5$ ,  $C(O)NR^5R^5$ ,  $C(=NR^5)NR^5R^5$ , or  $S(O)_nR^5$ ;

Each  $R^7$  is independently halo,  $CF_3$ ,  $SR^{10}$ ,  $OR^{10}$ ,  $OC(O)R^{10}$ ,  $NR^{10}R^{10}$ ,  $NR^{10}R^{11}$ ,  $NR^{11}R^{11}$ ,  $COOR^{10}$ ,  $NO_2$ , CN,  $C(O)R^{10}$ ,  $OC(O)NR^{10}R^{10}$ ,  $C(O)NR^{10}R^{10}$ ,  $N(R^{10})C(O)R^{10}$ ,  $N(R^{10})(COOR^{10})$ ,  $S(O)_nNR^{10}R^{10}$ ;  $NR^{10}S(O)_nNR^{10}R^{10}$ ;  $NR^{10}S(O)_nR^{10}$ ; or  $P(O)(OR^5)_2$ ;

Each  $R^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $R^9$ ; halo; sulfur; oxygen;  $CF_3$ ;  $SR^5$ ;  $OR^5$ ;  $OC(O)R^5$ ;  $NR^5R^5$ ;  $NR^5R^6$ ;  $NR^6R^6$ ;  $COOR^5$ ;  $NO_2$ ; CN;  $C(O)R^5$ ;  $C(O)NR^5R^5$ ;  $S(O)_nNR^5R^5$ ;  $NR^5C(O)NR^5R^5$ ;  $NR^5C(O)R^9$ ;  $NR^5S(O)_nNR^5R^5$ ;  $NR^5S(O)_nR^9$ ; C1-C10 alkyl substituted with 1-3 independent  $R^7$ ,  $R^9$  or aryl; or C2-C10 alkenyl substituted with 1-3 independent  $R^7$ ,  $R^9$  or aryl;

Each  $R^9$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen;  $CF_3$ ; haloalkyl;  $SR^{10}$ ;  $OR^{10}$ ;  $NR^{10}R^{10}$ ;  $NR^{10}R^{11}$ ;  $NR^{11}R^{11}$ ;  $COOR^{10}$ ;  $NO_2$ ; CN;  $C(O)R^{10}$ ;  $S(O)_nR^{10}$ ;  $S(O)_nNR^{10}R^{10}$ ; or  $C(O)NR^{10}R^{10}$ ;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>;

$\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; provided  $\text{R}^1$  is not methoxy or hydroxy when  $\text{R}^2$  is 4-chlorophenylamino; further provided  $\text{R}^1$  is not phenoxy, methoxy or ethoxy when  $\text{R}^2$  is 4-aminophenylsulfonylamino; and further provided  $\text{R}^1$  is not phenoxy when  $\text{R}^2$  is 4-methylthiophenylamino or sulfanilamide.

9. The compound of claim 1 wherein,

$\text{R}^1$  is independently  $\text{SR}^5$ ;

$\text{R}^2$  is independently  $\text{NHR}^3$ ;

Each  $\text{R}^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $\text{R}^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring;

Each  $\text{R}^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^5\text{R}^{16}$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each  $\text{R}^6$  is independently  $\text{C(O)R}^5$ ,  $\text{COOR}^5$ ,  $\text{C(O)NR}^5\text{R}^5$ ,  $\text{C(=NR}^5)\text{NR}^5\text{R}^5$ , or  $\text{S(O)}_n\text{R}^5$ ;

Each  $\text{R}^7$  is independently halo,  $\text{CF}_3$ ,  $\text{SR}^{10}$ ,  $\text{OR}^{10}$ ,  $\text{OC(O)R}^{10}$ ,  $\text{NR}^{10}\text{R}^{10}$ ,  $\text{NR}^{10}\text{R}^{11}$ ,  $\text{NR}^{11}\text{R}^{11}$ ,  $\text{COOR}^{10}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{10}$ ,  $\text{OC(O)NR}^{10}\text{R}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$ ,  $\text{N(R}^{10})\text{C(O)R}^{10}$ ,  $\text{N(R}^{10})(\text{COOR}^{10})$ ,  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{R}^{10}$ ; or  $\text{P(O)(OR}^5)_2$ ;

Each  $\text{R}^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or

S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

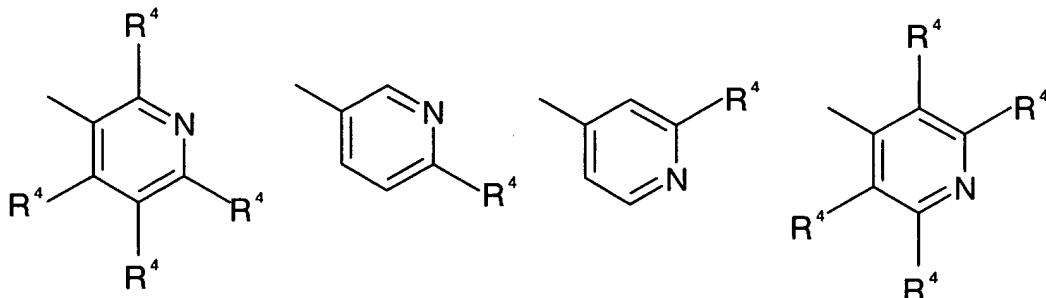
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

10. The compound of claim 1 wherein:

R<sup>2</sup> is independently NHR<sup>3</sup>;

R<sup>1</sup> is one of the following groups:



Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>;

$\text{OR}^{10}$ ;  $\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{R}^{11}$ ;  $\text{NR}^{11}\text{R}^{11}$ ;  $\text{COOR}^{10}$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^{10}$ ;  $\text{S(O)}_n\text{R}^{10}$ ;  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ; or  $\text{C(O)NR}^{10}\text{R}^{10}$ ;

Each  $\text{R}^{10}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl,  $\text{OR}^{12}$ ,  $\text{SR}^{12}$ ,  $\text{NR}^{12}\text{R}^{12}$ ,  $\text{COOR}^{12}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{12}$ ,  $\text{C(O)NR}^{12}\text{R}^{12}$ ,  $\text{NR}^{12}\text{C(O)R}^{12}$ ,  $\text{N(R}^{12})(\text{COOR}^{12})$ ,  $\text{S(O)}_n\text{NR}^{12}\text{R}^{12}$ , or  $\text{OC(O)R}^{12}$ ; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{12}$ ,  $\text{SR}^{12}$ ,  $\text{NR}^{12}\text{R}^{12}$ ,  $\text{COOR}^{12}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{12}$ ,  $\text{C(O)NR}^{12}\text{R}^{12}$ ,  $\text{NR}^{12}\text{C(O)R}^{12}$ ,  $\text{N(R}^{12})(\text{COOR}^{12})$ ,  $\text{S(O)}_n\text{NR}^{12}\text{R}^{12}$ , or  $\text{OC(O)R}^{12}$ ;

Each  $\text{R}^{11}$  is independently  $\text{C(O)R}^{10}$ ,  $\text{COOR}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$  or  $\text{S(O)}_n\text{R}^{10}$ ;

Each  $\text{R}^{12}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{13}$ ,  $\text{SR}^{13}$ ,  $\text{NR}^{13}\text{R}^{13}$ ,  $\text{COOR}^{13}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{13}$ ,  $\text{C(O)NR}^{13}\text{R}^{13}$ ,  $\text{NR}^{13}\text{C(O)R}^{13}$ , or  $\text{OC(O)R}^{13}$ ; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{13}$ ,  $\text{SR}^{13}$ ,  $\text{NR}^{13}\text{R}^{13}$ ,  $\text{COOR}^{13}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{13}$ ,  $\text{C(O)NR}^{13}\text{R}^{13}$ ,  $\text{NR}^{13}\text{C(O)R}^{13}$ , or  $\text{OC(O)R}^{13}$ ;

Each  $\text{R}^{13}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ; or phenyl optionally substituted with halo,  $\text{CF}_3$ ,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ;

Each  $\text{R}^{14}$  is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each  $\text{R}^{16}$  is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{COOR}^5$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$ ,  $\text{R}^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $\text{R}^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; and

Each  $\text{R}^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;

$\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ .

11. The compound of claim 1 wherein,

$\text{R}^1$  is independently heterocyclyl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring, wherein said heterocyclyl is not unsubstituted piperidine;

$\text{R}^2$  is independently  $\text{NHR}^3$ ;

Each  $\text{R}^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $\text{R}^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring;

Each  $\text{R}^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^5\text{R}^{16}$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each  $\text{R}^6$  is independently  $\text{C(O)R}^5$ ,  $\text{COOR}^5$ ,  $\text{C(O)NR}^5\text{R}^5$ ,  $\text{C(=NR}^5)\text{NR}^5\text{R}^5$ , or  $\text{S(O)}_n\text{R}^5$ ;

Each  $\text{R}^7$  is independently halo,  $\text{CF}_3$ ,  $\text{SR}^{10}$ ,  $\text{OR}^{10}$ ,  $\text{OC(O)R}^{10}$ ,  $\text{NR}^{10}\text{R}^{10}$ ,  $\text{NR}^{10}\text{R}^{11}$ ,  $\text{NR}^{11}\text{R}^{11}$ ,  $\text{COOR}^{10}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{10}$ ,  $\text{OC(O)NR}^{10}\text{R}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$ ,  $\text{N(R}^{10})\text{C(O)R}^{10}$ ,  $\text{N(R}^{10})(\text{COOR}^{10})$ ,  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{R}^{10}$ ; or  $\text{P(O)(OR}^5)_2$ ;

Each  $\text{R}^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be

substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>,

$\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ; or phenyl optionally substituted with halo,  $\text{CF}_3$ ,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ;

Each  $\text{R}^{14}$  is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each  $\text{R}^{16}$  is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{COOR}^5$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$ ,  $\text{R}^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $\text{R}^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; and

Each  $\text{R}^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ .

12. The compound of claim 1 wherein,

Each  $\text{R}^1$  is independently heteroaryl substituted with 1-4 independent  $\text{R}^4$  on each ring, wherein said heteroaryl comprises at least one nitrogen heteroatom and said heteroaryl is attached at said nitrogen heteroatom;

Each  $\text{R}^2$  is independently  $\text{NHR}^3$ ;

Each  $\text{R}^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $\text{R}^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring;

Each  $\text{R}^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^5\text{R}^{16}$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3

independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

13. The compound of claim 1 wherein,

Each R<sup>1</sup> is independently heterocyclyl substituted with 1- 4 independent R<sup>4</sup> on each ring, wherein said heterocyclyl is not unsubstituted piperidine, and said heterocyclyl comprises at least one nitrogen heteroatom and said heterocyclyl is attached at said nitrogen heteroatom;

Each R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>;

$\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)R}^9$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^9$ ; C1-C10 alkyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl; or C2-C10 alkenyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl;

Each  $\text{R}^9$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen;  $\text{CF}_3$ ; haloalkyl;  $\text{SR}^{10}$ ;  $\text{OR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{R}^{11}$ ;  $\text{NR}^{11}\text{R}^{11}$ ;  $\text{COOR}^{10}$ ;  $\text{NO}_2$ ; CN;  $\text{C(O)R}^{10}$ ;  $\text{S(O)}_n\text{R}^{10}$ ;  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ; or  $\text{C(O)NR}^{10}\text{R}^{10}$ ;

Each  $\text{R}^{10}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each  $\text{R}^{11}$  is independently  $\text{C(O)R}^{10}$ ,  $\text{COOR}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$  or  $\text{S(O)}_n\text{R}^{10}$ ;

Each  $\text{R}^{12}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each  $\text{R}^{13}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each  $\text{R}^{14}$  is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

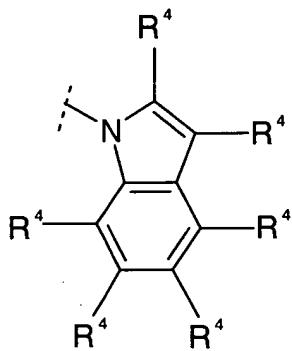
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

14. The compound of claim 1 wherein,

Each R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>1</sup> is independently of the formula:



Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>;

$\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each  $\text{R}^6$  is independently  $\text{C(O)R}^5$ ,  $\text{COOR}^5$ ,  $\text{C(O)NR}^5\text{R}^5$ ,  $\text{C(=NR}^5)\text{NR}^5\text{R}^5$ , or  $\text{S(O)}_n\text{R}^5$ ;

Each  $\text{R}^7$  is independently halo,  $\text{CF}_3$ ,  $\text{SR}^{10}$ ,  $\text{OR}^{10}$ ,  $\text{OC(O)R}^{10}$ ,  $\text{NR}^{10}\text{R}^{10}$ ,  $\text{NR}^{10}\text{R}^{11}$ ,  $\text{NR}^{11}\text{R}^{11}$ ,  $\text{COOR}^{10}$ ,  $\text{NO}_2$ , CN,  $\text{C(O)R}^{10}$ ,  $\text{OC(O)NR}^{10}\text{R}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$ ,  $\text{N(R}^{10})\text{C(O)R}^{10}$ ,  $\text{N(R}^{10})(\text{COOR}^{10})$ ,  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{S(O)}_n\text{R}^{10}$ ; or  $\text{P(O)(OR}^5)_2$ ;

Each  $\text{R}^8$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; halo; sulfur; oxygen;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^6\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ; CN;  $\text{C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)R}^9$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^9$ ; C1-C10 alkyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl; or C2-C10 alkenyl substituted with 1-3 independent  $\text{R}^7$ ,  $\text{R}^9$  or aryl;

Each  $\text{R}^9$  is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen;  $\text{CF}_3$ ; haloalkyl;  $\text{SR}^{10}$ ;  $\text{OR}^{10}$ ;  $\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{R}^{11}$ ;  $\text{NR}^{11}\text{R}^{11}$ ;  $\text{COOR}^{10}$ ;  $\text{NO}_2$ ; CN;  $\text{C(O)R}^{10}$ ;  $\text{S(O)}_n\text{R}^{10}$ ;  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ; or  $\text{C(O)NR}^{10}\text{R}^{10}$ ;

Each  $\text{R}^{10}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10

cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

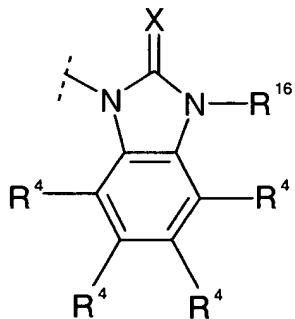
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

15. The compound of claim 1 wherein,

Each R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>1</sup> is independently of the formula:



Each X is independently O or S;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-

C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

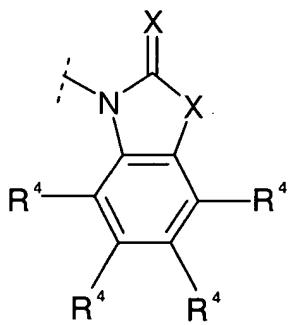
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

16. The compound of claim 1 wherein,

Each R<sup>2</sup> is independently NHR<sup>3</sup>;

Each R<sup>1</sup> is independently of the formula:



Each X is independently O or S;

Each R<sup>3</sup> is independently aryl; phenyl optionally substituted with 1-5 independent R<sup>4</sup> on each ring; or heteroaryl optionally substituted with 1-4 independent R<sup>4</sup> on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be

substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>,

$\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ; or phenyl optionally substituted with halo,  $\text{CF}_3$ ,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ;

Each  $\text{R}^{14}$  is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

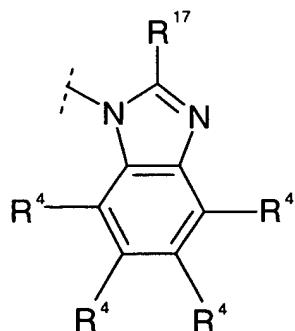
Each  $\text{R}^{16}$  is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{COOR}^5$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$ ,  $\text{R}^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $\text{R}^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; and

Each  $\text{R}^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ .

17. The compound of claim 1 wherein,

Each  $\text{R}^2$  is independently  $\text{NHR}^3$ ;

Each  $\text{R}^1$  is independently of the formula:



Each  $\text{R}^3$  is independently aryl; phenyl optionally substituted with 1-5 independent  $\text{R}^4$  on each ring; or heteroaryl optionally substituted with 1-4 independent  $\text{R}^4$  on each ring;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>;

$\text{OR}^{10}$ ;  $\text{NR}^{10}\text{R}^{10}$ ;  $\text{NR}^{10}\text{R}^{11}$ ;  $\text{NR}^{11}\text{R}^{11}$ ;  $\text{COOR}^{10}$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^{10}$ ;  $\text{S(O)}_n\text{R}^{10}$ ;  $\text{S(O)}_n\text{NR}^{10}\text{R}^{10}$ ; or  $\text{C(O)NR}^{10}\text{R}^{10}$ ;

Each  $\text{R}^{10}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl,  $\text{OR}^{12}$ ,  $\text{SR}^{12}$ ,  $\text{NR}^{12}\text{R}^{12}$ ,  $\text{COOR}^{12}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{12}$ ,  $\text{C(O)NR}^{12}\text{R}^{12}$ ,  $\text{NR}^{12}\text{C(O)R}^{12}$ ,  $\text{N(R}^{12})(\text{COOR}^{12})$ ,  $\text{S(O)}_n\text{NR}^{12}\text{R}^{12}$ , or  $\text{OC(O)R}^{12}$ ; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{12}$ ,  $\text{SR}^{12}$ ,  $\text{NR}^{12}\text{R}^{12}$ ,  $\text{COOR}^{12}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{12}$ ,  $\text{C(O)NR}^{12}\text{R}^{12}$ ,  $\text{NR}^{12}\text{C(O)R}^{12}$ ,  $\text{N(R}^{12})(\text{COOR}^{12})$ ,  $\text{S(O)}_n\text{NR}^{12}\text{R}^{12}$ , or  $\text{OC(O)R}^{12}$ ;

Each  $\text{R}^{11}$  is independently  $\text{C(O)R}^{10}$ ,  $\text{COOR}^{10}$ ,  $\text{C(O)NR}^{10}\text{R}^{10}$  or  $\text{S(O)}_n\text{R}^{10}$ ;

Each  $\text{R}^{12}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{13}$ ,  $\text{SR}^{13}$ ,  $\text{NR}^{13}\text{R}^{13}$ ,  $\text{COOR}^{13}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{13}$ ,  $\text{C(O)NR}^{13}\text{R}^{13}$ ,  $\text{NR}^{13}\text{C(O)R}^{13}$ , or  $\text{OC(O)R}^{13}$ ; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo,  $\text{CF}_3$ ,  $\text{OR}^{13}$ ,  $\text{SR}^{13}$ ,  $\text{NR}^{13}\text{R}^{13}$ ,  $\text{COOR}^{13}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ,  $\text{C(O)R}^{13}$ ,  $\text{C(O)NR}^{13}\text{R}^{13}$ ,  $\text{NR}^{13}\text{C(O)R}^{13}$ , or  $\text{OC(O)R}^{13}$ ;

Each  $\text{R}^{13}$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ; or phenyl optionally substituted with halo,  $\text{CF}_3$ ,  $\text{OR}^{14}$ ,  $\text{SR}^{14}$ ,  $\text{NR}^{14}\text{R}^{14}$ ,  $\text{COOR}^{14}$ ,  $\text{NO}_2$ ,  $\text{CN}$ ;

Each  $\text{R}^{14}$  is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each  $\text{R}^{16}$  is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{COOR}^5$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$ ,  $\text{R}^8$ , or phenyl optionally substituted with substituted with 1-4 independent  $\text{R}^{23}$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

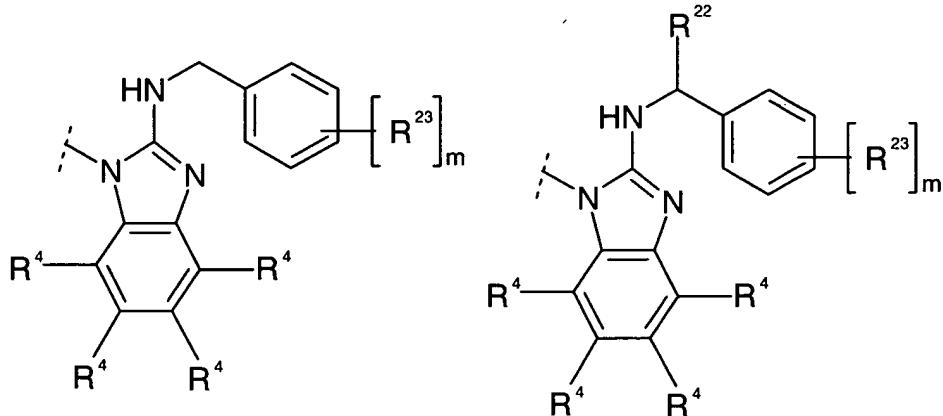
Each  $\text{R}^{17}$  is independently  $\text{NR}^5\text{R}^{16}$ ;  $\text{OR}^5$ ;  $\text{SR}^5$ ; or halo; and

Each  $\text{R}^{23}$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;

$\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  
 $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  
 $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  
 $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  
 $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ .

18. The compound of claim 1 wherein,

Each  $\text{R}^1$  is independently one of the following groups:



wherein m is 0, 1, 2, 3 or 4;

Each  $\text{R}^4$  is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^8$ ; halo;  $\text{CF}_3$ ;  $\text{SR}^5$ ;  $\text{OR}^5$ ;  $\text{OC(O)R}^5$ ;  $\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{R}^6$ ;  $\text{NR}^5\text{R}^{16}$ ;  $\text{COOR}^5$ ;  $\text{NO}_2$ ;  $\text{CN}$ ;  $\text{C(O)R}^5$ ;  $\text{C(O)C(O)R}^5$ ;  $\text{C(O)NR}^5\text{R}^5$ ;  $\text{S(O)}_n\text{R}^5$ ;  $\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)R}^5$ ;  $\text{NR}^5\text{C(O)R}^5$ ;  $\text{NR}^5(\text{COOR}^5)$ ;  $\text{NR}^5\text{C(O)R}^8$ ;  $\text{NR}^5\text{S(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{R}^8$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^5$ ;  $\text{NR}^5\text{C(O)C(O)NR}^5\text{R}^6$ ;  $\text{OC(O)NR}^5\text{R}^5$ ;  $\text{OS(O)}_n\text{NR}^5\text{R}^5$ ;  $\text{NR}^5\text{S(O)}_n\text{OR}^5$ ;  $\text{P(O)(OR}^5)_2$ ; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^8$ ;

Each  $\text{R}^5$  is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl;  $\text{R}^9$ ; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$  groups; or C2-C10 alkenyl substituted with 1-3 independent aryl,  $\text{R}^7$  or  $\text{R}^9$ ;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

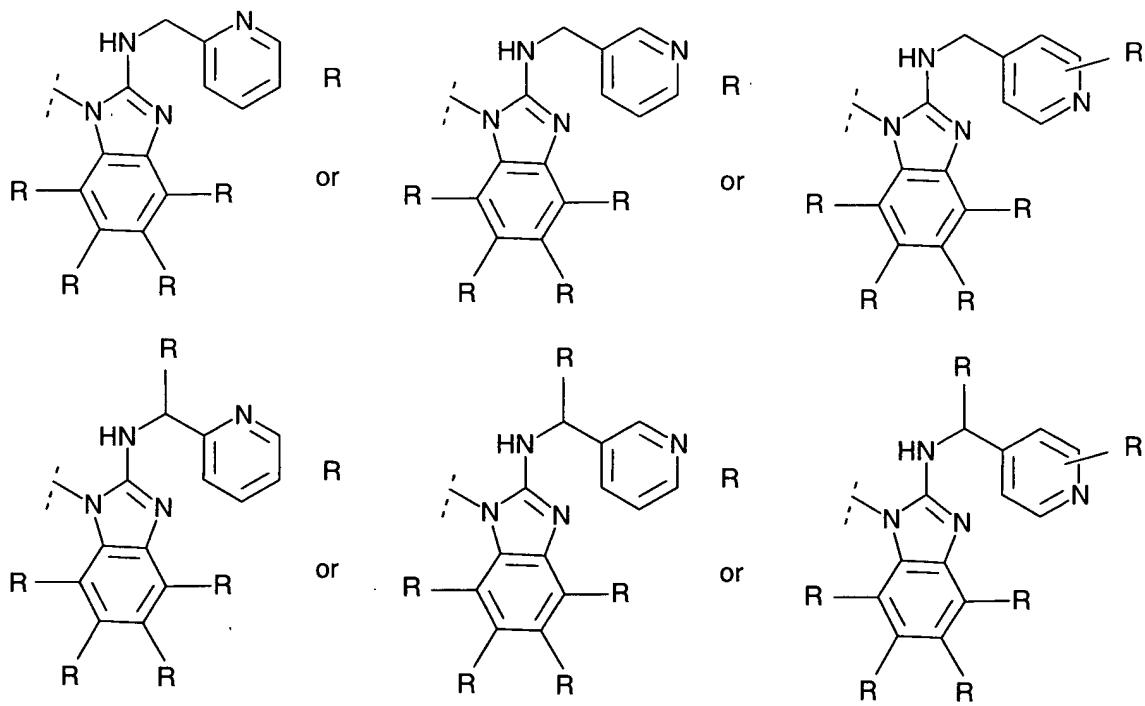
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>22</sup> is independently C2-C9 alkyl substituted with 1-2 independent aryl, R<sup>7</sup>, or R<sup>8</sup>; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

19. The compound of claim 1 wherein,

Each R<sup>1</sup> is independently



wherein m is 0, 1, 2, 3 or 4;

Each R<sup>4</sup> is independently selected from H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10

alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

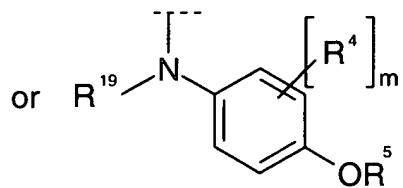
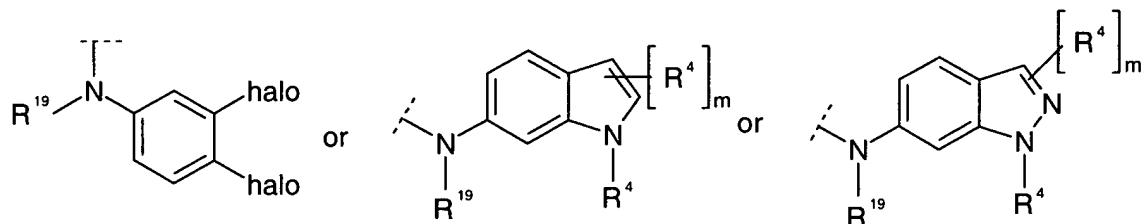
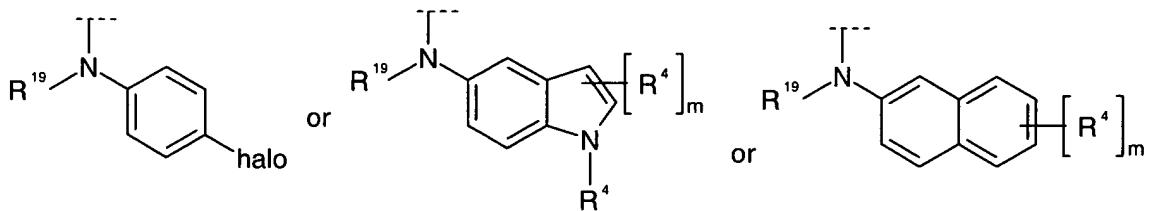
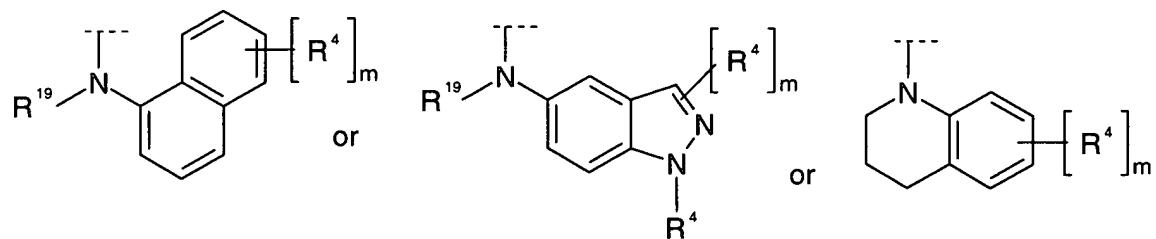
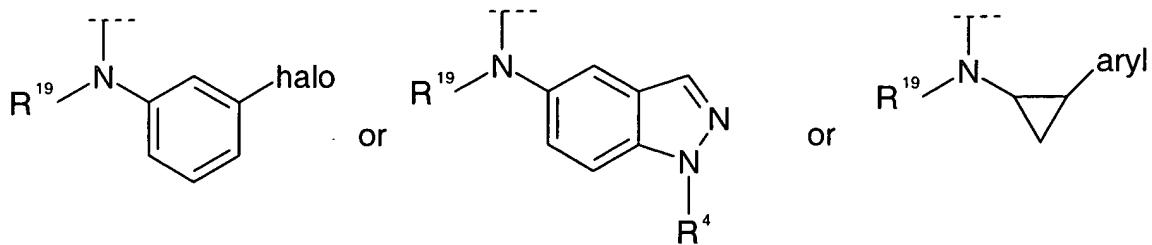
Each R<sup>22</sup> is independently C2-C9 alkyl substituted with 1-2 independent aryl, R<sup>7</sup>, or R<sup>8</sup>;

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; and

Each R<sup>24</sup> is independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl.

20. The compound of claim 1 wherein,

Each R<sup>1</sup> is independently one of the following:



wherein

Each halo is selected from fluoro, chloro, bromo and iodo;

Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be

substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

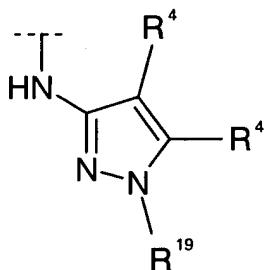
Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>19</sup> is independently H or C1-C6 alkyl; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

21. The compound of claim 1 wherein,

Each R<sup>1</sup> is independently



Each R<sup>4</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>5</sup>R<sup>16</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>5</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; haloalkyl; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; C3-C10 cycloalkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup> groups; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>9</sup>;

Each R<sup>6</sup> is independently C(O)R<sup>5</sup>, COOR<sup>5</sup>, C(O)NR<sup>5</sup>R<sup>5</sup>, C(=NR<sup>5</sup>)NR<sup>5</sup>R<sup>5</sup>, or S(O)<sub>n</sub>R<sup>5</sup>;

Each R<sup>7</sup> is independently halo, CF<sub>3</sub>, SR<sup>10</sup>, OR<sup>10</sup>, OC(O)R<sup>10</sup>, NR<sup>10</sup>R<sup>10</sup>, NR<sup>10</sup>R<sup>11</sup>, NR<sup>11</sup>R<sup>11</sup>, COOR<sup>10</sup>, NO<sub>2</sub>, CN, C(O)R<sup>10</sup>, OC(O)NR<sup>10</sup>R<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup>, N(R<sup>10</sup>)C(O)R<sup>10</sup>, N(R<sup>10</sup>)(COOR<sup>10</sup>), S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>S(O)<sub>n</sub>R<sup>10</sup>; or P(O)(OR<sup>5</sup>)<sub>2</sub>;

Each R<sup>8</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2, 3 or 4 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>9</sup>; halo; sulfur; oxygen; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; NR<sup>6</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>9</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>9</sup>; C1-C10 alkyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl; or C2-C10 alkenyl substituted with 1-3 independent R<sup>7</sup>, R<sup>9</sup> or aryl;

Each R<sup>9</sup> is independently a 3-8 membered monocyclic, 7-12 membered bicyclic, or 11-14 membered tricyclic ring system having 1-3 heteroatoms if monocyclic, 1-6 heteroatoms if bicyclic, or 1-9 heteroatoms if tricyclic, said heteroatoms independently selected from O, N, or S, which may be saturated or unsaturated, and wherein 0, 1, 2 or 3 atoms of each ring may be substituted by a substituent independently selected from C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; halo; sulfur; oxygen; CF<sub>3</sub>; haloalkyl; SR<sup>10</sup>; OR<sup>10</sup>; NR<sup>10</sup>R<sup>10</sup>; NR<sup>10</sup>R<sup>11</sup>; NR<sup>11</sup>R<sup>11</sup>; COOR<sup>10</sup>; NO<sub>2</sub>; CN; C(O)R<sup>10</sup>; S(O)<sub>n</sub>R<sup>10</sup>; S(O)<sub>n</sub>NR<sup>10</sup>R<sup>10</sup>; or C(O)NR<sup>10</sup>R<sup>10</sup>;

Each R<sup>10</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; haloalkyl; C1-C10 alkyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>12</sup>, SR<sup>12</sup>, NR<sup>12</sup>R<sup>12</sup>, COOR<sup>12</sup>, NO<sub>2</sub>, CN, C(O)R<sup>12</sup>, C(O)NR<sup>12</sup>R<sup>12</sup>, NR<sup>12</sup>C(O)R<sup>12</sup>, N(R<sup>12</sup>)(COOR<sup>12</sup>), S(O)<sub>n</sub>NR<sup>12</sup>R<sup>12</sup>, or OC(O)R<sup>12</sup>;

Each R<sup>11</sup> is independently C(O)R<sup>10</sup>, COOR<sup>10</sup>, C(O)NR<sup>10</sup>R<sup>10</sup> or S(O)<sub>n</sub>R<sup>10</sup>;

Each R<sup>12</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl substituted with 1-3 independent C2-

C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>; or phenyl optionally substituted with 1-3 independent C1-C10 alkyl, C2-C10 alkenyl, C2-C10 alkynyl, C3-C10 cycloalkyl, C4-C10 cycloalkenyl, halo, CF<sub>3</sub>, OR<sup>13</sup>, SR<sup>13</sup>, NR<sup>13</sup>R<sup>13</sup>, COOR<sup>13</sup>, NO<sub>2</sub>, CN, C(O)R<sup>13</sup>, C(O)NR<sup>13</sup>R<sup>13</sup>, NR<sup>13</sup>C(O)R<sup>13</sup>, or OC(O)R<sup>13</sup>;

Each R<sup>13</sup> is independently H; C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; C1-C10 alkyl optionally substituted with halo, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN; or phenyl optionally substituted with halo, CF<sub>3</sub>, OR<sup>14</sup>, SR<sup>14</sup>, NR<sup>14</sup>R<sup>14</sup>, COOR<sup>14</sup>, NO<sub>2</sub>, CN;

Each R<sup>14</sup> is independently H; C1-C10 alkyl; C3-C10 cycloalkyl or phenyl;

Each R<sup>16</sup> is independently H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; COOR<sup>5</sup>; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup>, R<sup>8</sup>, or phenyl optionally substituted with substituted with 1-4 independent R<sup>23</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>;

Each R<sup>19</sup> is independently H or C1-C6 alkyl; and

Each R<sup>23</sup> is independently selected from H, C1-C10 alkyl; C2-C10 alkenyl; C2-C10 alkynyl; C3-C10 cycloalkyl; C4-C10 cycloalkenyl; aryl; R<sup>8</sup>; halo; CF<sub>3</sub>; SR<sup>5</sup>; OR<sup>5</sup>; OC(O)R<sup>5</sup>; NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>R<sup>6</sup>; COOR<sup>5</sup>; NO<sub>2</sub>; CN; C(O)R<sup>5</sup>; C(O)C(O)R<sup>5</sup>; C(O)NR<sup>5</sup>R<sup>5</sup>; S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)R<sup>5</sup>; NR<sup>5</sup>C(O)R<sup>5</sup>; NR<sup>5</sup>(COOR<sup>5</sup>); NR<sup>5</sup>C(O)R<sup>8</sup>; NR<sup>5</sup>S(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>R<sup>8</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>C(O)C(O)NR<sup>5</sup>R<sup>6</sup>; OC(O)NR<sup>5</sup>R<sup>5</sup>; OS(O)<sub>n</sub>NR<sup>5</sup>R<sup>5</sup>; NR<sup>5</sup>S(O)<sub>n</sub>OR<sup>5</sup>; P(O)(OR<sup>5</sup>)<sub>2</sub>; C1-C10 alkyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>; or C2-C10 alkenyl substituted with 1-3 independent aryl, R<sup>7</sup> or R<sup>8</sup>.

24. A method of treating kinase-mediated disease or disease symptoms in a mammal comprising administration of a composition comprising an effective amount of a compound of any of claims 1-21.

25. A method of inhibiting kinase activity in a mammal comprising administration of a composition comprising an effective amount of a compound of any of claims 1-21.

26. A method of treating disease or disease symptoms in a mammal comprising administration of a composition comprising an effective amount of a compound of any of claims 1-21.

27. A method of inhibiting angiogenesis or vasculogenesis activity in a mammal comprising administration of a composition comprising an effective amount of a compound of any of claims 1-21.